

**Claims**

1           1.     A method integrated calorie management, said method  
2     comprising the steps of:

3                 measuring a resting metabolic rate (RM) of a user;  
4                 utilizing the measured resting metabolic rate and user activity level over  
5     a predetermined time interval to determine a total energy expenditure (TEE) of  
6     the user;

7                 determining a total calorie intake (TCI) value representing the person's  
8     total calorie intake during the predetermined time interval;

9                 determining from the total energy expenditure measurement and the  
10    total calorie intake value a caloric balance (CB) for the user; and

11                using a rate of change of the measured resting metabolic rate to  
12    determine when to remeasure the resting metabolic rate of the user.

1           2.     A method as set forth in claim 1 wherein the rate of change of  
2     the measured resting metabolic rate varies inversely with the frequency of  
3     remeasuring the resting metabolic rate of the user.

1           3.     The method according to claim 1, wherein the computed calorie  
2     balance is displayed for the time interval on a computing device.

1           4.     The method according to claim 1, wherein the comparisons of  
2     the computed calorie balance to a predetermined target calorie balance is  
3     displayed for the time interval on a computing device.

1           5.     The method according to claim 4, wherein the displayed  
2     comparisons also include a display indicating the trends of the computed  
3     calorie balances with respect to said target calorie balance.

1           6.     The method according to claim 1, wherein the resting metabolic  
2     rate is measured by an indirect calorimeter which produces the resting  
3     metabolism measurement by analyzing the difference in the contents of the gas  
4     inhaled and exhaled by the user.

1           7.     A method of integrated calorie management using a computing  
2     device, said method comprising the steps of:  
3             identifying a user using the computing device;  
4             selecting a health target for the user using the computing device;  
5             measuring food consumption by the user during a predetermined time  
6     interval to determine a total calorie intake (TCI) of the user during the time  
7     interval by the computing device;  
8             measuring physical activity of the user during the time interval, wherein  
9     the measured physical activity and a measured resting metabolic rate are used

10 to determine a total energy expenditure (TEE) of the user during the time  
11 interval by the computing device;  
12 determining from the total energy expenditure measurement and the  
13 total caloric intake value a caloric balance (CB) for the user by the computing  
14 device; and  
15 using the caloric balance by the user to balance the user's caloric intake  
16 with the user's physical activity to meet the health target.

1 8. A method according to claim 7 including the step of measuring  
2 the resting metabolism (RM) of the user.

1 9. A method as set forth in claim 8 including the step of using a  
2 rate of change of the measured resting metabolic rate to determine when to  
3 remeasure the resting metabolic rate of the user.

1 10. A method according to claim 7, wherein the computed calorie  
2 balance is displayed on a computing device.

1 11. A method according to claim 7, wherein the comparison of the  
2 computed calorie balance to a predetermined target calorie balance is displayed  
3 on a computing device.

1           12. The method according to claim 11, wherein the displayed  
2 comparison also includes a display indicating a trend of the computed calorie  
3 balance with respect to said target calorie balance.

1           13. The method according to claim 7 wherein said resting  
2 metabolism is measured by an indirect calorimeter which determines the  
3 resting metabolic rate measurement by analyzing the difference in the contents  
4 of the gas inhaled and exhaled by the person.

1           14. The method according to claim 7, wherein said step of  
2 identifying the user includes providing the user's height and weight.

1           15. The method according to claim 7, wherein said step of  
2 providing a health target includes providing a target weight, or target nutrient  
3 goal.

1           16. The method according to claim 7, wherein the computing device  
2 provides information regarding targets and goals as part of a weight control  
3 program.

1           17. The method according to claim 7, wherein the computing device  
2 provides a nutritional value of the food intake by the user.

1           18.    The method according to claim 7, wherein the user provides  
2   physical activity information to determine the total energy expenditure  
3   measurement.

1           19.    The method according to claim 7, wherein the user is provided a  
2   report of progress made during the time interval towards the target weight on  
3   the computing device.

1           20.    The method according to claim 19, wherein a level of progress  
2   made during the time interval towards the target weight is represented on the  
3   computing device by a progress-related icon.

1           21.    A method as set forth in claim 7 including the step of  
2   graphically providing the user on a display for the computing device an  
3   indication of whether the calorie balance is progressing favorably or  
4   unfavorably towards the health target.

1           22.    The method according to claim 21, wherein the graphical  
2   indication displayed includes a plurality of icons.

1           23.    A system of integrated calorie management comprising:  
2                   a computer having a processor, a memory, a display and a user input  
3   mechanism;

4 a method of integrated calorie management stored in said memory of  
5 said computer system;

6 a user using the method of integrated calorie management stored in said  
7 memory of said computer system to achieve a target health goal by providing a  
8 total calorie intake (TCI) representing the user's total calorie intake during a  
9 time interval, determining by the computer a total energy expenditure (TEE)  
10 representing the total energy expenditure of the user during the time interval;  
11 determining by the computer a resting metabolic rate for the user, wherein a  
12 calorie balance (CB) value for the time interval is determined from the total  
13 energy expenditure value and the total calorie intake value; and providing on  
14 the display graphical indication of  
15 the calorie balance for the time interval.

1 24. The system according to claim 23, wherein one icon is  
2 displayed if the computed calorie balance for the time interval is favorable  
3 towards achieving the target goal, and another icon is displayed if the  
4 computed calorie balance for the time interval is unfavorable towards  
5 achieving the target goal.

1 25. The system according to claim 23, wherein the target goal is a  
2 target weight loss over a predetermined time period.

1           26.    A system as set forth in claim 23 including an activity monitor  
2    adapted to provide a signal correlated to the physical activity of the person to  
3    the computer.

1           27.    A system as set forth in claim 23 including an indirect  
2    calorimeter to measure the resting metabolic rate of the user.

1           28.    A system as set forth in claim 23 wherein the computer is a  
2    handheld PDA.

1           29.    A method of integrated calorie management using a computing  
2    device, said method comprising the steps of:  
3           identifying a user using the computing device;  
4           selecting a health target for the user using the computing device;  
5           providing measured food consumption during a predetermined time  
6    interval by the user to the computing device;  
7           using the food consumption by the computing device to determine a  
8    total calorie intake (TCI) of the user during the time interval;  
9           providing measured physical activity of the user during the time  
10   interval to the computing device,  
11           using by the computing device the measured physical activity and a  
12   measured resting metabolic rate to determine a total energy expenditure (TEE)  
13   of the user during the time interval;

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- 14               determining by the computing device a caloric balance for the user  
15               during the time interval from the total energy expenditure measurement and the  
16               total calorie intake; and  
17               maintaining the calorie balance for the time interval in a balance log  
18               stored in a memory of the computing device; and  
19               using the balance log by the user with the health target.